

VVB Bio's Co-Founders Publish Groundbreaking Anti-Ageing Research in Nature

Anti-IL11 Antibody Holds Promise for Human Healthspan Extension

Singapore – July 18, 2024 - VVB Bio, a biotechnology company dedicated to transforming lives through innovative antibody therapeutics, is thrilled to announce the publication of groundbreaking research by our co-founders in the prestigious peer-reviewed scientific journal, *Nature*.

The published paper, titled "Inhibition of IL-11 Signalling Extends Mammalian Healthspan and Lifespan," demonstrates the impact of IL-11 (Interleukin-11), a pro-inflammatory and pro-fibrotic signalling protein, on age-related diseases and lifespan in mice. The researchers found that as mice age, IL-11 levels increase across tissues, affecting critical pathways essential for healthspan and lifespan.

By genetic deletion or using an antibody to block IL-11, the team showed improvements in metabolism, muscle function and reduced frailty in old mice of both sexes. Importantly, treating 75-week-old mice (the human equivalent of approximately 55 years of age) extended the median lifespan of mice of both sexes by more than 22% with a lower incidence of cancer.

This research is groundbreaking because it demonstrates for the first time the role of a pro-inflammatory factor, IL-11, in mammalian healthspan and lifespan. The study not only highlights the negative impact of IL-11 on age-related diseases and frailty but also shows that it is possible to improve healthspan and lifespan in mammals with immunotherapy.

Building on these findings, VVB Bio has engineered an antibody that optimizes the delivery and efficacy of the anti-IL-11 therapy for anti-ageing purposes. VVB Bio has also secured patents covering the use of its novel antibody to extend healthspan and treat various age-related diseases, including license agreements from SingHealth and Duke-NUS for exclusive rights. Whilst the antibody is ready, the company is currently studying the most appropriate protocol for human clinical trials of its anti-IL-11 antibody treatment to establish the safety and efficacy of its therapy, to bring this innovative treatment to patients globally as soon as possible.

Dr. Stuart A. Cook, the senior author of the study, Professor at SingHealth Duke-NUS and Imperial College, and co-founder of VVB Bio, commented, "Our research highlights the potential of targeting IL-11 as a therapeutic strategy to combat age-related diseases and extend healthspan. The results are very promising and pave the way for developing new treatments that could profoundly impact human health and longevity."

Dr. Sebastian Schäfer, contributing author and co-founder of VVB Bio added, "Soon after our discovery in 2020, we started engineering an anti-IL-11 therapeutic with an anti-ageing therapy in mind. This antibody is highly potent and effective in blocking IL-11 for an extended period with a single dose. We are excited and would like to begin clinical trials as soon as possible to benefit people and society with increased healthspan."

About VVB Bio

VVB Bio is a cutting-edge biotechnology company dedicated to transforming lives through innovative antibody therapeutics. VVB's unique platform allows us to target one, two or multiple disease genes to address unmet healthcare needs with the goal of enhancing the wellbeing of the global population.

VVB Bio's co-founders previously founded Enleofen Bio, where they developed IL-11 antibodies to treat fibrotic diseases. Boehringer Ingelheim, a global pharmaceutical company, subsequently purchased these products in Singapore's largest ever biotech deal and has clinical trials underway.

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References:

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